

CLARK, LINCOLN, AND WHITE PINE COUNTIES GROUNDWATER DEVELOPMENT PROJECT EIS

**WATER RESOURCES TECHNICAL REVIEW
MEETING 1 – BASELINE DATA
June 23-24, 2005**

ANTHROPOGENIC ASPECTS

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Presentation Organization

- **Definitions**
- **Data types**
- **Uses of data**
- **Task specific study area**
- **Datasets by source**
- **Data Considerations**



Definitions

- **Anthropogenic: of, relating to, or resulting from the influence of human beings on nature**



Types of Anthropogenic Data

- Groundwater Production Data
- Surface Water Diversion Data
- Land Use
- Historical Population Data
- Historical Irrigation Records
- Water Rights Points of Diversion



Uses of Data

- **Groundwater Production Data**
 - Used to document withdrawal of groundwater from aquifers
- **Land Use**
 - Used to delineate ownership administration / political boundaries
- **Historical Population Data**
 - Used to estimate groundwater withdrawals necessary to support a given population
- **Water Rights Point of Diversion Data**
 - Used to estimate potential amount of groundwater withdrawals from aquifer system and surface water diversions



Study Area

- Reconnaissance level investigation for the “General Hydrologic Study Area”
- Detailed level of investigation for hydrographic areas containing irrigated lands
 - Delineation of irrigated lands
 - Compilation of water rights and population data



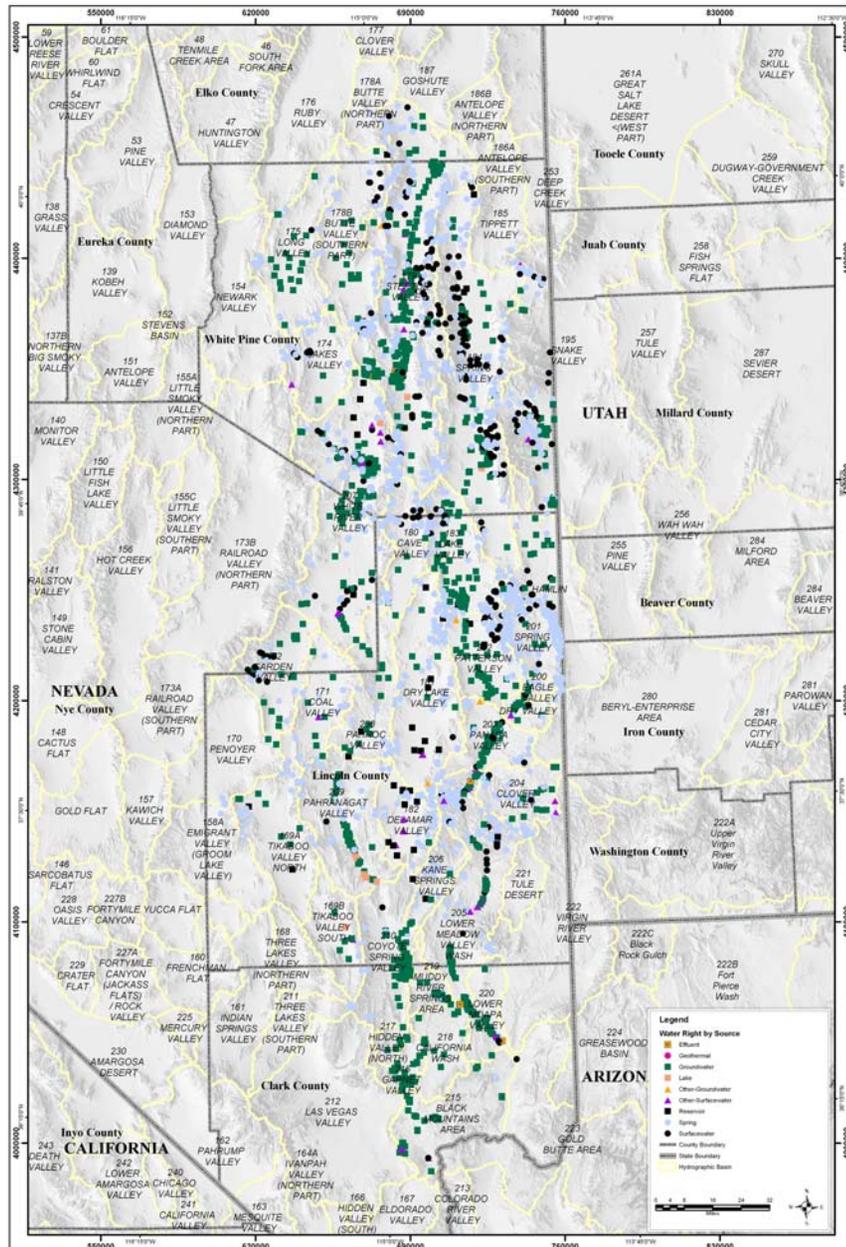
Datasets by Source

- Nevada Division of Water Resources
- Utah Division of Water Resources
- Nevada State Demographer
- Nevada State Library and Archives
- United States Geological Survey
- Other Published Reports



Nevada Division of Water Resources

- **Points of Diversion Data**
 - Used to identify locations and “potential maximum” amounts of groundwater removed from system
- **Groundwater Pumpage Inventories**
 - Available for select areas and for certain years (e.g., Pahrnagat, Panaca, and White River Valleys)



Nevada Water Rights Points of Diversion

SNWA Data Submittal - BLM Hydrology Technical Team 6/23/05 - 6/24/05

Map ID #11525 06/16/05 DAS

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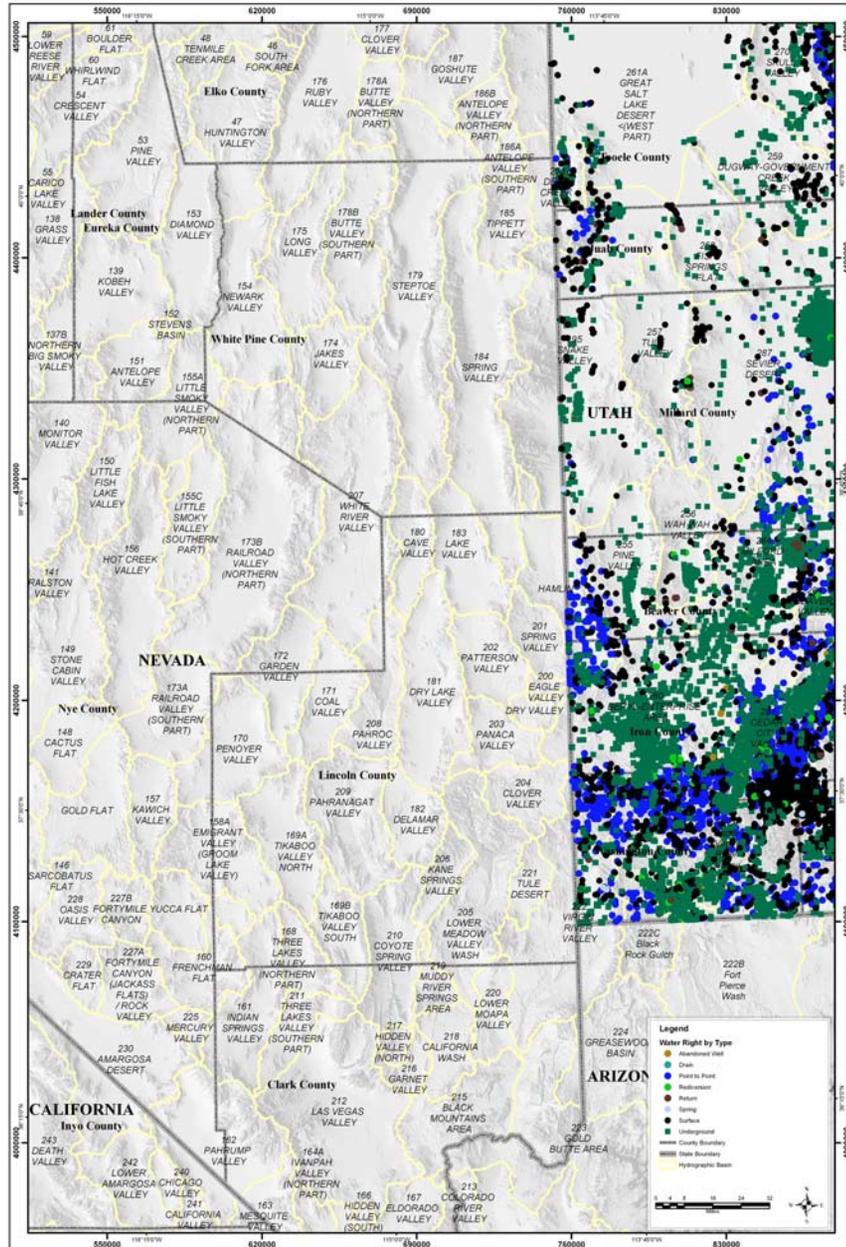


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Utah Division of Water Rights

- Points of Diversion
 - Executable zipped shapefile
 - Used to identify locations and “potential maximum” amounts of groundwater removed from system



Utah Water Rights Points of Diversion

SNWA Data Submittal - BLM Hydrology Technical Team 6/23/05 - 6/24/05

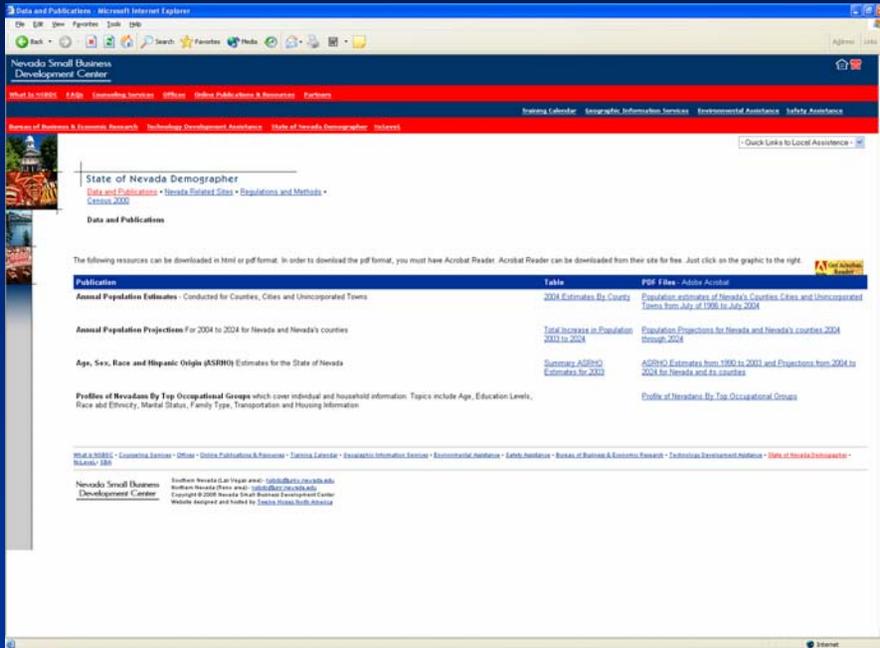
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Nevada State Demographer



- The Nevada State Demographer's Office
 - <http://www.nsbdc.org/demographer/>
 - Contains yearly county, city, and town populations from 1986-2004

Nevada State Library and Archives

- Nevada State Library and Archives
 - <http://dmla.clan.lib.nv.us/docs/NSLA/sdc/placenames/>
- Contains Nevada place names populations from 1860-2000



United States Geological Survey

- **Hutson and others (2004) – “Estimated use of water in the United States in 2000”**
 - County-level data for the year 2000
 - Allows for a determination of water use rates for different counties
- **Moreo and others (2003) - “Estimated Ground-Water Withdrawals from the Death Valley Regional Flow System, Nevada and California, 1913-1998”**
- **Lopes and Evetts (2004) - “Ground-Water Pumpage and Artificial Recharge Estimates for Calendar Year 2000 and Average Annual Natural Recharge and Interbasin Flow by Hydrographic Area, Nevada”**



Data Considerations

- Potential to over estimate groundwater pumpage if water right duties are used
- Population data not available for every year
- Groundwater pumpage inventories not available for all basins and for every year



How to Access the Data



- Anthropogenic data found in the “Anthropogenic Aspects” folder
- Data is organized by source discussed in this presentation

Questions

Thank you

